575

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Economic Research Service

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The Export Enhancement Program

How Has It Affected Wheat Exports?

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In this report... *The United States subsidized 50 percent of its wheat exports between 1985 and 1988 under the Export Enhancement Program (EEP) in an attempt to expand U.S. exports and counter European Community export subsidies. The Department of Agriculture uses a complex bidding process to award EEP subsidies to targeted countries. The program grew steadily from 1985 through mid-1988, with wheat accounting for over 80 percent of EEP sales value. Economic analysis indicates that the program raised U.S. wheat export volume, prices, and gross export revenues. But net export revenues rose only slightly once the value of commodities from Government inventories awarded to exporters under the EEP is taken into account.*

Origin of Export Enhancement

The United States created the Export Enhancement Program in the spring of 1985 in response to pressures for Government intervention in faltering agricultural export markets and to counter European Community (EC) export subsidies. Policymakers resurrected an old idea from the agricultural policies of the 1950's and 1960's, to subsidize exports with bonuses of surplus commodities. This is known as payment-in-kind of subsidies.

When the EEP was developed, agricultural exports were down and Government surplus stocks were up. Financial stress in the farm sector was also causing concern. Improving the competitiveness of U.S. agricultural exports in world markets could help alleviate these problems.

Rather than create an across-the-board subsidy on all farm exports, the U.S. Department of Agriculture (USDA) developed a flexible bidding system to establish subsidy levels on individual EEP sales to targeted countries. The value of the subsidy awarded can vary across individual sales.

Policymakers identified four interrelated criteria to be used as guides for the program: additionality, targeting, cost effectiveness, and budget neutrality. (See box.) Revised criteria were announced in the *Federal Register* on November 27, 1989.

Criteria for EEP Sales

The criteria announced in the *Federal Register* in June 1985 are:

Additionality. Sales must increase U.S. agricultural exports above what would have occurred in the absence of the program.

Targeting. Sales will be targeted on specific market opportunities, especially those that challenge competitors which subsidize their exports.

Cost effectiveness. Sales should result in a net plus to the overall economy.

Budget neutrality. Sales should not increase budget outlays beyond what would have occurred in the absence of the program.

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Bidding Process Used to Award EEP Bonuses

The USDA cooperates with exporting firms, foreign governments, and other Federal agencies to award EEP subsidies.

How Are EEP Subsidies Awarded?

Transactions under the EEP follow six primary steps (fig. 1):

Step 1. Based on recommendations from foreign governments, the U.S. agricultural community, USDA program specialists, and others, USDA announces selection of the targeted country and the maximum quantity of the commodity (wheat, in this example) that may be exported under the EEP initiative.

Step 2. Exporting firms negotiate sales of wheat with the targeted country conditional on Commodity Credit Corporation (CCC) acceptance of the firms' bids for EEP bonuses.

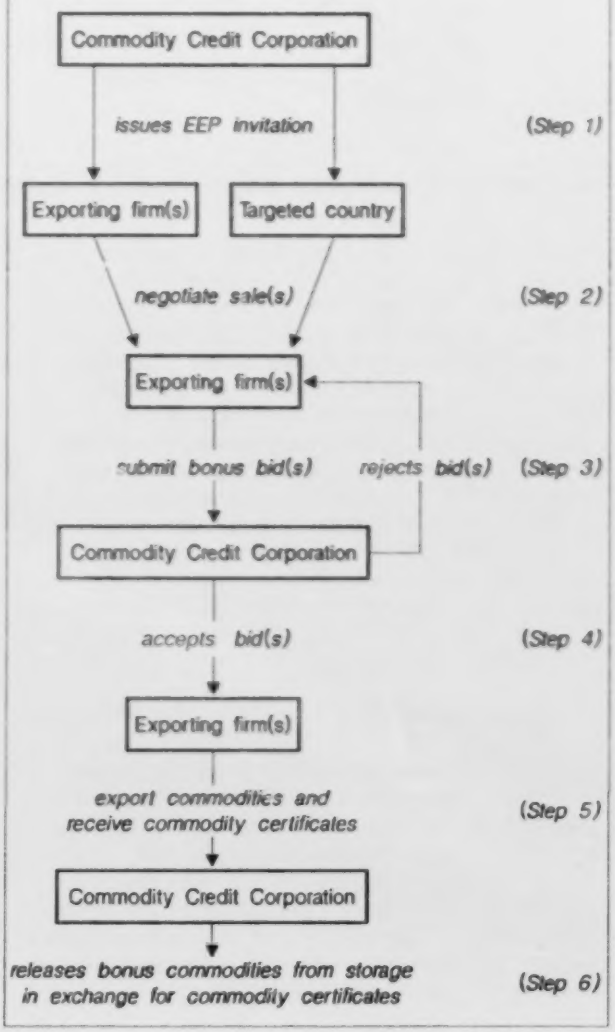
Step 3. The firms estimate how high a per-ton subsidy they will need to sell U.S. wheat at the price agreed to in the negotiation. The firms then submit these estimates as EEP bonus bids to the CCC.

Step 4. The CCC accepts or rejects the bids on a daily basis. Firms with bids that are rejected may revise and resubmit their bids.

Step 5. Firms with successful bids export the U.S. wheat and receive EEP commodity certificates. The value of the commodity certificates equals the per-unit bonus determined in the bidding process multiplied by the amount of wheat sold to the targeted country.

Step 6. EEP commodity certificates may be exchanged for an equivalent value of commodities in Government storage or may be sold by the exporting firms. Purchasers of certificates may also exchange them for CCC commodities, or the certificates may be used as payment for outstanding USDA loans.

Figure 1
EEP award process



EEP Sales Increased From 1985 Through 1987

The EEP grew steadily from 1985 through mid-1988. By value, sales of agricultural commodities under the EEP rose from $805 million in fiscal 1986 (October 1985-September 1986) to $3.3 billion in fiscal 1988, but dropped off to $2.8 billion in fiscal 1989.

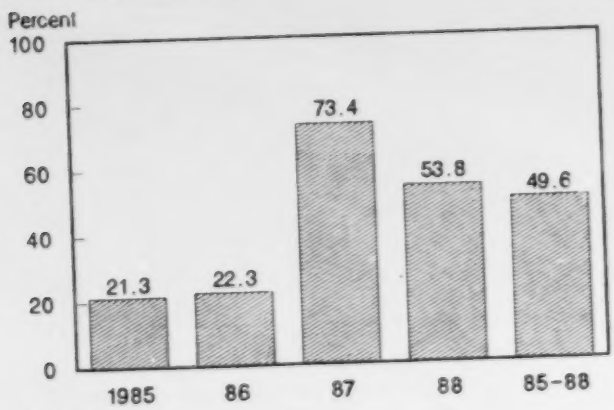
Congress passed laws in 1985, 1986, and 1988 authorizing the USDA to supply increasing amounts of bonus commodities through the EEP. Legislation mandated minimum EEP bonus awards of $1 billion and maximum awards of $1.5 billion for the 3-year period of October 1985-September 1988. Congress later supplemented the subsidy level by $1 billion to be offered during October 1988-September 1990 (table 1). However, Congress limited the value of bonus commodities awarded to $770 million for October 1988 through September 1989.

Wheat is the chief commodity sold under the EEP, accounting for over 80 percent of the value of sales of all EEP commodities. EEP wheat sales reached 51.5 million metric tons from September 1985 through December 1988. Bonus values for wheat shipments totaled $1.6 billion for the same time period.

EEP wheat sales accounted for 50 percent of total U.S. wheat exports from calendar year 1985 to 1988. EEP sales' share of total U.S. wheat exports reached 21 percent in 1985 and 22 percent in 1986. This share jumped to 73 percent in 1987 and then fell to 54 percent for 1988 (fig. 2).

Although wheat sales represented the bulk of total EEP sales, the EEP is important to exports of other commodities as well. For example, over 60 percent of barley exports were supported by EEP sales in fiscal 1988. Ten other commodities have received export subsidies under the EEP: wheat flour, semolina, barley malt, sorghum, rice, poultry feed, vegetable oil, frozen poultry, dairy cattle, and table eggs. Major commodities are shown in table 2.

Figure 2
Growth of EEP sales as a share of U.S. wheat exports[1]



1/ Calendar year.

Table 1—Authorized bonus levels and actual bonuses for the EEP, 1985-90[1]

Legislation and applicable time period	Authorized spending level	Bonuses[2]
	Billion dollars	
Food Security Act of 1985 and 1986 Food Security Improvements Act		
FY86-88	1.0-1.5	NA
FY86	NA	0.3
FY87	NA	0.9
FY88	NA	1.0
Omnibus Trade Act of 1988		
FY86-90	1.0-2.5	NA
FY89 Appropriations (P.L. 100-460)		
FY89	0.77	0.34

[1]Amendments to the Commodity Credit Corporation Charter Act of 1933 and the Agricultural Act of 1949 authorized the program and gave the Secretary of Agriculture discretion in its implementation.
[2]EEP bonuses are awarded in commodity certificates redeemable for commodities in Government inventories. The figures cited are the market value of commodities redeemed for commodity certificates.
NA = Not applicable.

Table 2—Commodities affected by export enhancement, FY87-FY88. EEP sales as a share of total exports by commodity.

Commodity	1987	1988	1989[1]
		Percent	
Wheat	51.0	65.0	45.8
Flour	69.0	42.3	60.3
Barley	98.0	60.5	34.1
Sorghum	2.1	3.5	0
Rice	1.1	5.5	.7
Vegetable oil	2.4	21.0	7.1
Frozen poultry	25.3	3.3	1.9
Dairy cattle	42.6	4.7	0
Eggs	68.9	15.8	15.0

[1]Through August 1989.

Markets Targeted for EEP Subsidies

Over 40 countries have been chosen as target markets for wheat under the EEP. But the bulk of EEP exports have gone to North Africa, the Soviet Union, and China.

Which Countries Have Been Affected?

The EEP was designed to increase U.S. exports by countering EC export subsidies. For this reason, the EEP targets specific markets and individual sales for subsidies, and is not a global export program. Most EEP sales were targeted to markets where the EC was a major competitor. However, as the EEP for wheat expanded, the U.S. sold wheat to many other markets.

Wheat export markets shared predominantly with the EC were primary targets in the initial phase of the EEP. North African countries claimed 5.5 million metric tons, or 76 percent of calendar year 1985 and 1986 EEP wheat sales (table 3).

As the EEP for wheat expanded, sales to Asia, Eastern Europe, China, and the Soviet Union accounted for 68 percent of the total EEP sales of 44.3 million metric tons from January 1987 through December 1988. The other major wheat exporters—Argentina, Australia, and Canada—were also active in many of these markets.

The Soviet Union is the largest recipient of EEP sales over the life of the program. The Soviet Union imported 13.2 million metric tons of wheat under the EEP through December 1988. Bonuses on the sales were valued at $457.0 million.

China, the second largest recipient under the program, purchased 10.2 million metric tons of EEP wheat through December 1988. Bonuses on these sales to China stand at $306.7 million.

Algeria, Egypt, and Morocco follow China with EEP purchases of 4.6 million, 5.2 million, and 4.2 million metric tons, respectively. The value of bonuses on these North African EEP sales is $452.5 million.

Which Countries Received the Highest Bonuses?

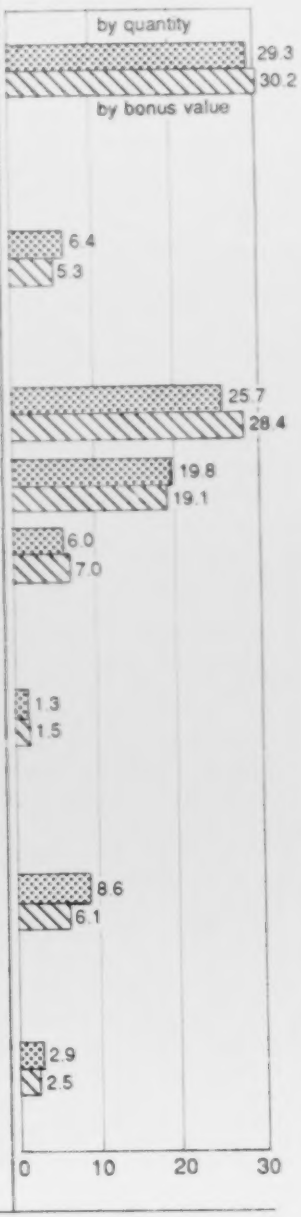
Comparing the quantity of wheat exported to each region with the average value of the bonuses received by each region shows that the Soviet Union and other Eastern European countries successfully negotiated the highest average subsidy per ton of wheat. North Africa, Africa, and China received the average level of EEP bonuses. Bonuses were lower on average for sales to the Latin American, less developed Asian, and Middle Eastern countries.

In general, bonuses have been higher for the mo contested markets and lower where the EC has been less competitive. EC competition called for higher bonuses in the Soviet Union, certain North African countries, and Poland. Bonuses to countries where the United States has a transportation advantage, such as the Philippines, have been lower.

Table 3—EEP wheat sales and bonus values by country and region[1]

Country	EEP wheat sales					Bonus values on EEP wheat sales				
	1985	1986	1987	1988	Total	1985	1986	1987	1988	Total
	1,000 metric tons					*Million dollars*				
North Africa	1,300	4,182	4,928	4,711	15,121	39.9	133.0	186.7	125.4	485.0
Algeria	500	1,094	1,326	1,705	4,625	22.6	38.5	52.9	47.4	161.4
Egypt	500	1,448	1,597	1,691	5,236	11.1	43.0	55.7	42.7	152.5
Morocco	300	1,090	1,730	1,050	4,170	6.2	38.6	66.2	27.6	138.6
Tunisia	0	550	275	250	1,075	0	12.9	11.9	7.3	32.1
Canary Islands	0	0	0	15	15	0	0	0	.4	.4
Middle East	450	407	1,530	905	3,292	12.2	11.2	45.5	16.1	85.0
Turkey	450	157	148	0	755	12.2	5.0	6.0	0	23.2
North Yemen	0	100	100	150	350	0	2.2	2.1	4.0	8.3
Jordan	0	150	225	40	415	0	4.0	8.6	.8	13.4
Iraq	0	0	1,057	715	1,772	0	0	28.8	11.3	40.1
Soviet Union	0	0	8,815	4,410	13,225	0	0	345.9	111.1	457.0
China	0	0	3,700	6,490	10,190	0	0	143.9	162.8	306.7
Other Europe	0	441	2,266	361	3,068	0	11.4	89.0	12.3	112.7
Yugoslavia	0	441	376	0	817	0	11.4	13.4	0	24.8
Poland	0	0	1,700	275	1,975	0	0	68.6	10.8	79.4
Bulgaria	0	0	150	0	150	0	0	5.7	0	5.7
Finland	0	0	40	86	126	0	0	1.3	1.5	2.8
Africa	0	220	242	220	682	0	7.9	8.7	6.8	23.4
Zaire	0	90	95	63	248	0	2.5	3.2	1.4	7.1
Benin	0	30	0	0	30	0	.8	0	0	.8
Senegal	0	100	0	0	100	0	4.6	0	0	4.6
West Africa[2]	0	0	147	157	304	0	0	5.5	5.4	10.9
Less developed Asia	0	227	905	3,305	4,437	0	5.2	28.6	64.4	98.2
Philippines	0	152	475	855	1,482	0	3.4	14.1	11.9	29.4
Sri Lanka	0	75	135	250	460	0	1.8	5.7	6.3	13.8
Bangladesh	0	0	295	200	495	0	0	8.8	3.6	12.4
India	0	0	0	2,000	2,000	0	0	0	42.6	42.6
Latin America	0	0	110	1,388	1,498	0	0	2.9	36.6	39.5
Brazil	0	0	66	0	66	0	0	1.6	0	1.6
Colombia	0	0	44	256	300	0	0	1.3	7.3	8.6
Mexico	0	0	0	1,132	1,132	0	0	0	29.3	29.3
Total	1,750	5,477	22,496	21,790	51,513	52.1	168.7	851.2	535.5	1,607.5

Regional shares of EEP sales and bonus values, 1985-88



[1]Calendar years through Dec. 1988.

[2]Includes Benin, Cameroon, Ivory Coast, Ghana, Togo, Burkina Faso, Gabon, Liberia, and Niger.

EEP Raised U.S. Wheat Export Volume and Revenue

The EEP boosted U.S. wheat export volume, prices, and gross export revenues. The revenue gain slightly outweighed the value of commodities from Government inventories awarded to exporters under the EEP. The EEP's effects on EC and U.S. export revenues depend on assumptions regarding the EC's response to the EEP.

What Does Economic Analysis Show About EEP?

The U.S. wheat trade position has improved since the EEP was created in 1985. But how much of the improvement can be credited to the EEP? Looking only at quantities flowing under the EEP does not answer this question. Many factors affect wheat exports, including exchange rates, importer demand, national agricultural policies, and domestic and global supplies. Economists have constructed detailed models to simulate international wheat market conditions. Using these models, researchers can isolate the effects of the EEP on U.S. wheat exports. Three different studies conducted independently are examined in this section.

Analysis shows that U.S. wheat exports, prices, and gross export revenues rose due to the EEP. The gain in export revenues slightly exceeded the value to the U.S. Government of the commodities offered as bonuses.

Has the EEP Boosted U.S. Wheat Exports?

Wheat exports rose slightly due to the EEP at the start of the program, and gained more from mid-1986 through 1988 (table 4). The gains in wheat exports were less than actual EEP sales during corresponding periods. EEP wheat sales to some countries replaced unsubsidized commercial sales. Competitors displaced from markets targeted for EEP sales sometimes moved into other markets where the United States previously had been a major supplier.

The volume of wheat exports was estimated to increase by 2 percent due to the EEP in the last quarter of 1985 and the first quarter of 1986 (the first 6 months of program sales), according to one study. For the second quarter of 1987, the research found that wheat export volume rose between 12 and 14 percent. Large EEP purchases by the North African countries and the Soviet Union boosted the total in this period.

A second researcher estimated a 20-percent increase in U.S. wheat export volume for the 1986/87 crop year (June/May) and a 7-percent increase for the 1987/88 crop year. A third researcher estimated 10- to 30-percent increases in U.S. wheat exports for the 1986/87 international marketing year (July/June) under different assumptions about how aggressively the EC would have subsidized its wheat sales in the absence of the EEP. The results at the higher end of this range assume the EC would have targeted special refunds for sales to individual countries in addition to its usual restitutions. That is, the EC would have adopted a new and much more aggressive export policy even without provocation from the EEP.

Has the EEP Raised Wheat Prices in the United States?

U.S. wheat prices rose slightly due to the EEP. Higher wheat prices improved market earnings for U.S. wheat growers and reduced Government outlays for direct income payments to U.S. farmers.

How the EEP affects the U.S. market price of wheat depends on two opposing forces. Prices will rise if trade partners respond by increasing the total demand for U.S. wheat exports. At the same time, releasing EEP bonus commodities from Government storage dampens prices in the short term.

Previously isolated from the market by legislation that limits releases, Government stocks exchanged for commodity certificates increase unrestricted market supplies of wheat. If the gains in demand for U.S. wheat brought about by the EEP exceed the increased market supplies, the U.S. price will rise.

The U.S. wheat price rose slightly in 1985, early 1986, and the second quarter of 1987 due to the EEP, according to one researcher.

How Do Export Revenue Gains Compare With Subsidy Values?

The increases in U.S. wheat exports and the U.S. market price combine to raise gross U.S. export revenues. But net U.S. export revenues changed only slightly once the value of the commodities from Government inventories awarded to exporters under the EEP was weighed against the benefits to wheat exports and prices.

One economic cost of the program is the value of EEP bonus commodities. Since they are surplus products, the Government must pay to store the commodities if they are not used in the EEP. Adjusting the value of the commodities by the future storage costs, the net unit value of the bonus commodities to the U.S. Government was estimated at about one-half of the market price in 1985 and 1986 when Government stocks neared record levels. Using this cost measurement, EEP costs were slightly less than the gains in U.S. gross export revenues due to the EEP in the last quarter of 1985 and the first quarter of 1986. As a result, net export revenues increased less than 1 percent due to the EEP.

By 1987, the value of the surplus commodities had risen to about two-thirds of market prices. Because the price support loan rate was lower, the Government acquired fewer stocks. Stocks also fell because commodities were paid out as EEP bonuses, and commodity certificates issued to producers were used to repay commodity loans and to acquire Government-owned commodities. Using this higher cost measurement, net export revenues again rose slightly during the second quarter of 1987 despite the larger effect the EEP had on exports during this period.

Table 4—Summary of research findings on EEP. Wheat export volume increased because of the program.

Time period and researcher	Export increase
	Percent
October 1985-March 1986 (Hillberg)	2-3
June 1986-May 1987 (Bailey)	20
July 1986-June 1987 (Haley)	10-30
April 1987-June 1987 (Hillberg)	12-14
June 1987-May 1988 (Bailey)	7

For more information, see:

Kenneth Bailey, "The Impact of the Food Security Act of 1985 on U.S. Wheat Exports: An Econometric Analysis," Ph.D. dissertation, Univ. of Minnesota, Sept. 1988 and updates.

Stephen L. Haley, *An Evaluation of Export Enhancement, Dollar Depreciation, and Loan Rate Reduction for Wheat*, AGES 89-6, U.S. Dept. Agr., Econ. Res. Serv., Apr. 1989.

Ann Marie Hillberg, "The United States' Export Enhancement Program for Wheat: A Simulation Model Employing Nash's Bargaining Solution," Ph.D. dissertation, Purdue Univ., May 1988 and updates.

EEP Placed Competitive Pressure on the European Community

The competition for export markets between the U.S. and the EC puts pressure on the EC either to spend more for subsidies or lose export volume.

Has the EEP Affected the EC's Export Markets?

The EC became a major competitor in the world wheat market in the late 1970's after having been a net importer of wheat until 1974 (fig. 3). Under the Common Agricultural Policy (CAP), the EC supports high internal grain prices and awards export restitutions (subsidies) to exporters to ensure that EC wheat is competitive on world markets (fig. 4). The EC may increase the export restitutions to defend its market share in specific markets if competitors' export prices decrease.

Some of the export revenue changes described on the previous page are based on an economic model that assumes that the EC did not act to defend its export value by subsidizing its exports even more in response to the EEP. Consequently, the EC's export volume and export price fall due to the EEP. If the EC does not act to defend its market share, its gross export revenues are estimated to fall slightly due to the EEP in the last quarter of 1985 and the first quarter of 1986 and by 14 to 16 percent in the second quarter of 1987.

As EC wheat exports decreased in the second quarter of 1987, net EC export revenues (gross revenues minus EC subsidy costs) actually improved because the EC spent less on its own subsidy payments. This conclusion does not address how the EC would dispose of its surplus wheat if not exporting it into world markets.

Contrary to the assumption made above, the EC did in fact increase its export subsidies to certain countries in response to the EEP. Researchers must make additional assumptions about how much the EC defends its export volume in order to incorporate these changing export subsidies into their models.

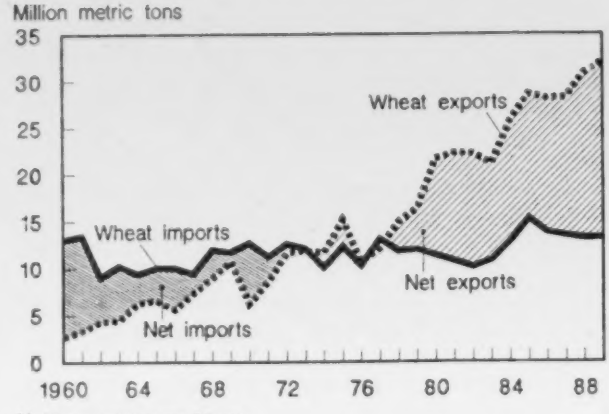
When the EC adjusts its subsidies to maintain the quantity of exports it would have had in the absence of the EEP, gross EC export revenues still fall. But the loss is less than that estimated under the assumption that the EC does not defend its export volume. Since export levels are not reduced, the burden of EC subsidy costs increases. This adds to the pressure on the EC budget and reduces EC net export revenue.

For the last quarter of 1985 and the first quarter of 1986, EC wheat export revenues, adjusted by higher per unit export restitutions, fell less than 1 percent due to the EEP, according to one study. In the second quarter of 1987, EC net revenues fell by 5 percent. Thus, the assumption regarding the EC response is critical to the effects of the EEP on the Community in the second quarter of 1987. If the EC does not respond to the EEP, net export revenues rise. With a response, they fall.

The EC's Response Affects the EEP's Benefits for the United States

The EC's defense of its export levels causes U.S. export revenues adjusted for EEP bonus values to fall below levels estimated in the absence of the EEP. World market supplies rise because the EC continues to export the quantity it exported before the EEP. The added supplies moderate the increases in U.S. exports and prices that are predicted under the assumption that the EC does not respond to the EEP by maintaining its export volume.

Figure 3
European Community wheat imports and exports, 1960-89

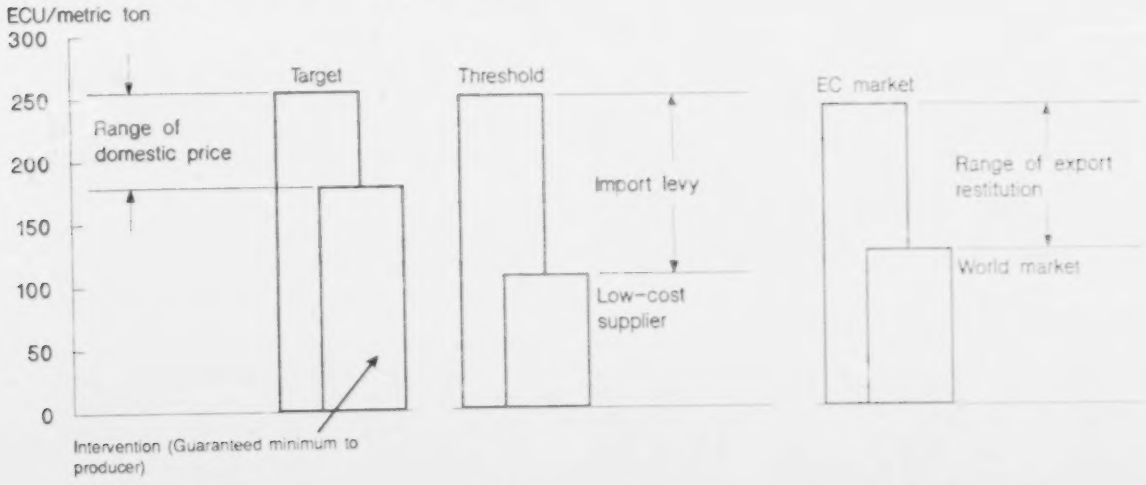


1/ EC-12. Includes intra-EC trade.

Figure 4

How export subsidy of wheat works in the European system

Prices in this example are typical of the period 1986–89



Domestic Mechanisms

The Common Agricultural Policy (CAP) sets a domestic target price and a price guaranteed for producers (intervention).

Import Mechanisms

To protect the general range of domestic prices, the CAP then sets a threshold price for imports and an import levy. Funds from the levy (at least in theory) are then rerouted to subsidize exports.

Export Mechanisms

The amount of export "refunds" or "restitutions" is set weekly, according to bids from EC exporters and the intended destinations.

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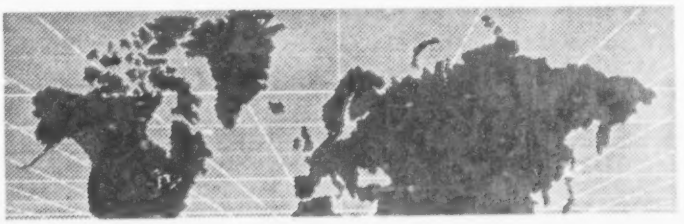

Agricultural Trade Reform

Changes in the world economy have altered the environment for agricultural trade, greatly affecting the demand for U.S. farm products abroad. Many countries are moving to more market-oriented agricultural policies by reducing subsidies and trade barriers. Plans for Europe 1992 and Soviet reforms represent special challenges for the U.S. food industry. Articles in this issue include:

- ***Rethinking World Agricultural Policies.*** Major players in world agricultural trade are reconsidering policies formulated over the last 50 years.
- ***How the World Economy Affects Agriculture.*** Flexible exchange rates and expanding world financial markets have changed the environment for agricultural trade.
- ***Europe 1992: Implications for Food and Agriculture.*** The European Community plans to remove all trade barriers among member countries by the end of 1992.
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For more information...

Contact Karen Ackerman, (202-786-1822), Economic Research Service, U.S. Department of Agriculture, Room 1024, 1301 New York Avenue, NW., Washington, DC 20005-4788.

Also see...

Ackerman, Karen Z., and Mark E. Smith. "A Review and Analysis of the EEP for Wheat," *Wheat Situation and Outlook Report*, WS-287, Econ. Res. Serv., U.S. Dept. Agr., Nov. 1989.

Acknowledgments...

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